

ABSTRACT OF THE DISCLOSURE

The invention relates to isolated polynucleotides homologous with a portion of one strand of the human tumor suppressor gene, *FEZ1*, and to the tumor suppressor protein encoded thereby, Fez1. The polynucleotides are useful, for example, as probes, primers, portions of expression vectors, and the like. The invention also includes diagnostic, therapeutic, cell proliferation enhancement, and screening methods which involve these polynucleotides and protein. The invention further includes kits useful for performing the methods of the invention.